WHAT IS CLAIMED IS:

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1. A cylindrical anode can for a battery having a sidewall and extending along a central axis; wherein

said sidewall includes

a large thickness portion located at an end portion of said sidewall and having a relatively large thickness, and

a small thickness portion being a portion other than said large thickness portion and having a thickness relatively smaller than that of said large thickness portion, and

in said sidewall, a distance between an outer circumferential surface of said large thickness portion and said central axis is equal to a distance between an outer circumferential surface of said small thickness portion and said central axis, whereas a distance between an inner circumferential surface of said large thickness portion and said central axis is smaller than a distance between an inner circumferential surface of said small thickness portion and said central axis.

- 2. The anode can for a battery according to claim 1, wherein in said sidewall, an inner circumferential surface of a boundary portion between said large thickness portion and said small thickness portion is inclined toward the inner circumferential surface of said sidewall in said small thickness portion.
- 3. A method of manufacturing an anode can for a battery comprising the steps of:

preparing a material member corresponding to a shape of an anode can for a battery to be produced;

forming a cylindrical body by deforming said material member so as to obtain a cylindrical body extending along a central axis and having a sidewall;

modifying a thickness by subjecting said sidewall to press working so as to form a large thickness portion located at an end portion of said sidewall and having a relatively large thickness and a small thickness portion being a portion other than said large thickness portion and having a thickness relatively smaller than that of said large thickness portion in said sidewall; and

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performing working by subjecting said sidewall to press working so that a distance between an outer circumferential surface of said large thickness portion and said central axis is equal to a distance between an outer circumferential surface of said small thickness portion and said central axis, and a distance between an inner circumferential surface of said large thickness portion and said central axis is smaller than a distance between an inner circumferential surface of said small thickness portion and said central axis.

- 4. The method of manufacturing an anode can for a battery according to claim 3, further comprising the step of determining a thickness of said large thickness portion in said sidewall after said step of modifying a thickness and before said step of performing working.
- 5. The method of manufacturing an anode can for a battery according to claim 3, wherein

said small thickness portion formed in said step of modifying a thickness has a thickness equal to that of a small thickness portion in a sidewall of an anode can for a battery to be produced.